FUJIFILM
Value from Innovation

DUOMED
by Palex

DOUBLE BALLOON ENDOSCOPY

DBE systems & therapeutic devices

FUJIFILM
Value from Innovation

CONTENT

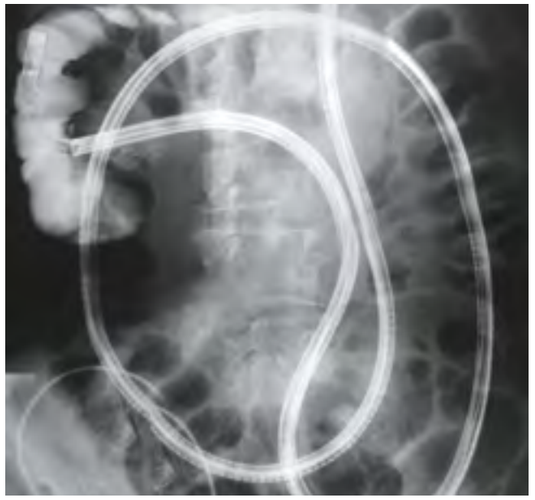
DOUBLE BALLOON ENDOSCOPY

Examining the small intestine in doubles

By developing the double balloon endoscope, Fujifilm pioneered examining and treating the entire small intestine. The two-balloon system provides an excellent level of detail and is, to this day, the gold standard in examination of the small intestine. It is also commonly used in ERCPs with altered conditions post-surgery.

Double Balloon Endoscopy (DBE)

DBE is a technique that allows the whole length of the small intestine to be visualised, opening doors to many therapeutic interventions. Fujifilm developed the DBE system to meet the clinical needs for more precise and efficient diagnosis and treatment.



Oral insertion (small intestine)

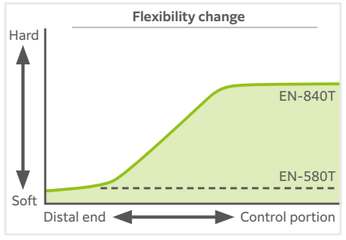
Anal insertion (small intestine)

Working channel with 3.2 mm diameter
The enlarged 3.2 mm working channel suits procedures such as haemostasis and balloon dilation. As it enables blood or mucus to be aspirated while a therapeutic device is inserted, quicker haemostasis is possible. The large working channel is also designed for easier insertion and removal of a balloon catheter before and after dilation of stricture.

NEW ELUXEO® EN-840T Enteroscope

Water jet function
Thanks to the Water Jet function mucous and blood adhering on the mucous membranes can be washed away with the EN-840T and the scope's field of view can be cleaned promptly. It is expected to ease the observation and treatment procedure.

Improved insertion portion
EN-840T features the established insertion portion that is hard at the control portion and soft at the distal end. It is aiming to make it easier to transmit operations such as pushing, pulling, and rotating to the distal end of the endoscope. In addition, the curve vertex when bending is designed closer to the tip of the flexible portion compared to EN-580T.



Powerful image quality
EN-840T double balloon endoscope is equipped with a CMOS sensor and achieves HD image quality. It also features LCI (Linked Color Imaging) and BLI (Blue Light Imaging) to support from observation to treatment.


White Light Imaging

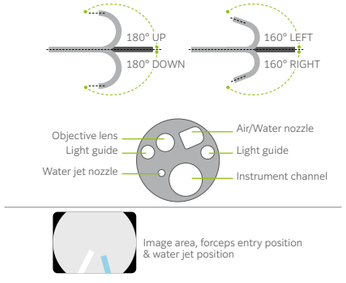

LCI-Mode


BLI-Mode

EN-840T ELUXEO® ENTEROSCOPE Therapeutic type

The new EN-840T double balloon endoscope is equipped with a CMOS sensor and achieves HD image quality. It also features LCI (Linked Color Imaging), BLI (Blue Light Imaging) and ACI (Amber-red Color Imaging) to support from observation to treatment. Due to its Water Jet Function mucus and blood adhering on the mucous membranes can be washed away and the endoscope's field of view can be cleaned promptly.

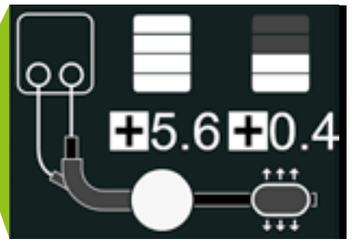
Viewing direction	0° (Forward)
Field of view	140°
Observation range	2 – 100 mm
Bending capability	Up 180°/Down 180° Right 160°/Left 160°
Ø Distal end	9.4 mm
Ø Flexible portion	9.3 mm
Ø Instrument channel	3.2 mm
Working length	2,000 mm
Total length	2,300 mm



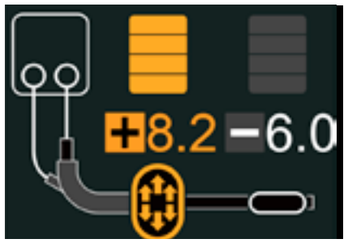
The advantages of combining ELUXEO® EN-840T & EP-8000

Operate PB-30 with a scope switch
When EP-8000 and PB-30 are connected with CC-PE01 (USB-RS-232C conversion cable), it is possible to operate PB-30 by pressing the scope switch (e.g. inflate/deflate balloon, stop PB-30 error buzzer). EN-840T has 5 switches. This allows to control PB-30 without removing the hand from the scope to support smooth examinations.

Balloon status and pressure on the endoscope screen
By displaying the status of the balloon and other devices on the endoscope screen, any irregularities can be checked immediately looking at the screen.



During inflation of balloon



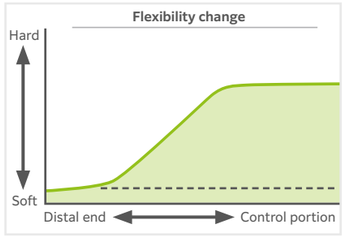
On error

”Short“ Double Balloon Endoscope EI-580BT

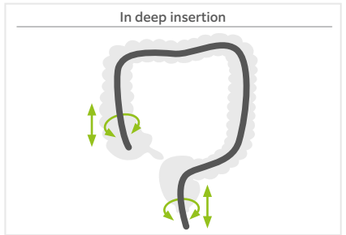
This “short” Double Balloon Endoscope (sDBE), is engineered to overcome technically challenging therapeutic ERCP procedures in patients with surgically altered anatomy such as Roux-en-Y reconstruction or hepaticojejunostomy anastomosis.

The “short” Double Balloon Endoscope’s length of 155 cm is optimum in such treatment; it provides compatibility with most of standard ERCP devices as well as superior maneuverability for smoother insertion in complex anatomy. Fujifilm has brought less invasive endoscopic interventions to the another level with this sDBE.

Improved flexible portion
With the newly developed flexible portion as well as two balloons, EI-580BT is designed to assist smooth insertion in complex reconstructed intestine.

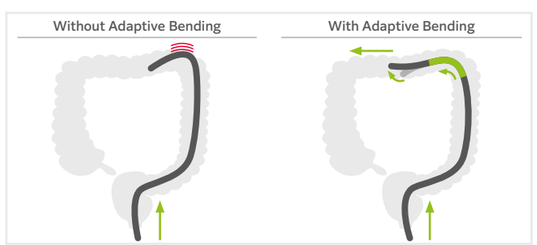


Advanced Force Transmission
The flexible portion is designed to transmit the pushing, pulling and rotating movements from the hand to the distal end of the endoscope. It is intended to be helpful for manoeuvrability inside the digestive tract.



Small Turning Radius
EI-580BT assists precise access to target point with its improved angle maneuverability. It increases effect of jiggling and shaking technique in advancing in the altered anatomy, realizes stable coaxial alignment of device tip and bileduct without elevator function.

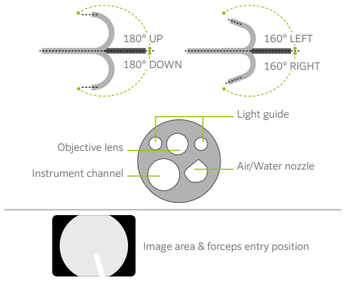
Adaptive Bending
The end of the bending section is soft, allowing the endoscope to bend easily. The flexible bending section has been designed to return more easily to its straight form after passing through the tight curves of the colon.



EI-580BT SHORT DOUBLE BALLOON ENDOSCOPE

FICE · S7 · DBE 3.2mm · DOUBLE BALLOON ENDOSCOPY

Viewing direction	0° (Forward)
Field of view	140°
Observation range	2 – 100 mm
Bending capability	Up 180°/Down 180° Right 160°/Left 160°
Ø Distal end	9.4 mm
Ø Flexible portion	9.3 mm
Ø Instrument channel	3.2 mm
Working length	1,550 mm
Total length	1,850 mm



Preparing for Double Balloon Endoscopy

Required materials

- Overtube (TS-13140)
- Balloon (BS-2)
- Balloon Setting Tool (ST-05B)
- Fixing Rubber Setting Tool (ST-10)
- Tube Kit

1. Use syringe to wet the inside of the overtube with water.

2. Move overtube up and down, making sure the inside is wet. Afterwards drain the excess water from the overtube.

3. Insert endoscope into the overtube. Push air through the supply port with an empty syringe to expel excess water.

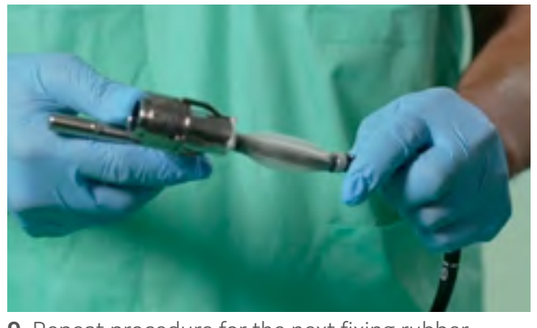
4. Sterilise the endoscope and the setting tool with alcohol.

5. Using the balloon setting tool, attach the balloon to the endoscope. Ensure you align the balloon and the distal end of the endoscope.

6. Unroll the end of the balloon, release and remove tool.

7. Prepare the setting tool: Pull the trigger together holding the fixing rubber in place.

8. Feed the balloon through the setting tool and pull the trigger further to attach the fxing rubber. Once attached, pull the setting tool off, while keeping the trigger tight.



9. Repeat procedure for the next fixing rubber. Align the distal end of the endoscope and setting tool to attach rubber.

10. Adjust rubber with your fingers where needed.

11. Inflate balloon carefully.

12. Put balloon in water to ensure there are no air leaks. Setup is complete.

Please also refer to the manual of the double balloon endoscope.

LIGHT SOURCES & PROCESSORS

EP-8000 | BL-7000 | VP-7000 | EP-6000

EP-8000

Efficient workflow, expanded therapeutic solution

The EP-8000 has enhanced linkage and expandability with various peripherals and systems. It supports easy operation and efficient workflow management.

The processor offers the new ACI (Amber-red Color Imaging) observation mode, designed to enhance the visualisation of slight colour tone differences of blood colour (e.g. for the estimating of the bleeding source).

EP-8000 ELUXEO HIGH-PERFORMANCE VIDEO PROCESSOR

To achieve high image quality standards, the ELUXEO® 8000 system features the LED Multi Light source. Now 4K ready, the EP-8000 system is installed with a 12G-SDI output, providing the possibility of 4K video quality. Its enhanced linkage and expandability with various peripherals and systems support easy operation and efficient workflow management.

The EP-8000 is compatible with a wide variety of Fujifilm's endoscopes ranging from 530**/580/600 series xenon light based endoscopes to the more advanced 700 and 800 series ELUXEO® generation endoscopes.

Light source	Multi LED
Air supply pump	High, Mid, Low, Off
Compatible endoscopes	800, 700, 600, 500 series endoscopes EB-530H, EB-530P, EB-530S, EB-530T, EB-530XT, EB-530US
Output	12G-SDI, 3G-SDI, DVI-D, RGB-TV
Input	Digital 2 channel PoP
External memory	USB Flash Drive
Power rating	100 – 240 V, 50/60 Hz, 3.0 – 1.5A
Dimensions (W x H x D)	395 x 210 x 515 mm (including projection)
Weight	18.0 kg

Switching observation modes

With a simple push of a button, you can easily switch between the following observation modes. The order and settings can be changed as desired.

Observation modes compatibility

Endoscope	BLI	LCI	ACI	FICE
800 / 700 series endoscopes	●	●	●	●
600 series endoscopes				●
580 series endoscopes				●
530 series endoscopes**				●

* Combine equipment displaying this logo to ensure that you view 4K images on your monitor.
** Only EB-530H, EB-530P, EB-530S, EB-530T, EB-530XT, EB-530US

VP-7000 ELUXEO® PROCESSOR

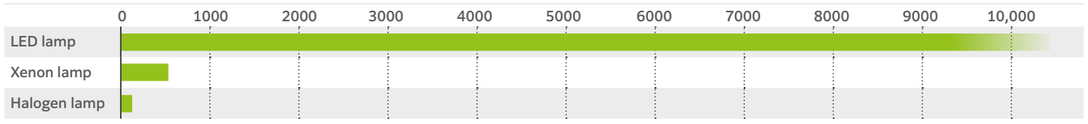
The ELUXEO® video processor VP-7000 enables you to make use of the many features provided by Fujifilm's wide range of endoscopes along with the 4-LED illumination system and its LCI and BLI visualisation modes. In addition to the ELUXEO® 800 and 700 series endoscopes, it is also compatible with the 600 and 500 series of endoscopes. The processor creates high-quality images displayed in full HD on the monitor. Automatic back-up mode for data storage is integrated and the processor is DICOM compatible.

Compatible endoscopes	800/700/600/500 series
Output	DVI-D x2, DVI-I x1, HD-SDI x2, RGB-TV x1, S VIDEO x1, VIDEO x1
Input	1 channel PoP
External memory	USB Flash Drive
Power rating	100 – 240 V, 50/60 Hz, 0.8 – 0.5 A
Dimensions (W x H x D)	390 x 110 x 485 mm (including projection)
Weight	9.0 kg

BL-7000 ELUXEO® 4-LED LIGHT SOURCE with high durability

A reliable light source is a prerequisite for use in large clinics as well as smaller outpatient centres to ensure procedures can take place as scheduled. To achieve high standards, the eco-friendly ELUXEO® 7000 system features the 4-LED Multi Light Source, which outperforms conventional Xenon or Halogen light sources: With 10,000 hours[1] average life expectancy for the LED lights, the ELUXEO® system has far longer durability while having much lower energy consumption, resulting in better cost-efficiency.

Light source	4-LED
Air supply pump	High, Mid, Low, Off
Power rating	100 – 240 V, 50/60 Hz, 1.2 – 0.7 A
Dimensions (W x H x D)	390 x 155 x 485 mm (including projection)
Weight	12.0 kg



Life expectancy in hours[1]

Durability Warranty

Our confidence in the ELUXEO® system BL-7000 is reflected by Fujifilm's Durability Warranty, which covers any defect of the LED light source unit that is attributable to a manufacturing or assembly fault under normal use for a period of five years or 10,000 operating hours, whichever comes first.[1]

1 This Warranty is only valid according to the terms and conditions of the Durability Warranty Policy.

EP-6000 ELUXEO® Lite PROCESSOR with built-in LED light source

The ELUXEO® Lite EP-6000 combines a reliable 3-LED light source with a processor that enables you to make use of the many features provided by Fujifilm's wide range of endoscopes. Available combined with the 800 and 700 series LCI (Linked Color Imaging) and BLI (Blue Light Imaging) visualisation modes.

Due to the use of economical LED lamps with a long durability this system is very eco-friendly. It is also compatible with the 600 and 500 series of endoscopes. The ELUXEO® Lite EP-6000 creates quality images and videos displayed in full HD on the monitor. Automatic back-up mode for data storage is integrated and the processor is also DICOM compatible.

Light source	3-LED
Air supply pump	High, Mid, Low, Off
Compatible endoscopes	800, 700, 600, 500 series endoscopes*
Output	DVI-D x2, RGB-TV x1, S VIDEO x1, VIDEO x1
External memory	USB Flash Drive
Power rating	100 – 240 V, 50/60 Hz, 2.0 – 1.1 A
Dimensions (W x H x D)	395 x 210 x 485 mm (including projection)
Weight	15.0 kg

Available observation modes	White Light	BLI	LCI	FICE
800/700 series	●	●	●	●
500/600 series	●			●

* Excluding 590 series endoscopes, EG-530UT2, EG-530UT, EG-530UR2 and EG-530UR.

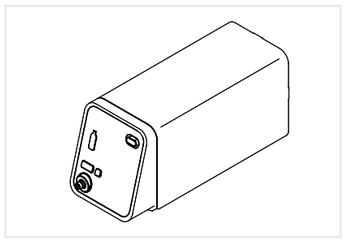
PB-30 BALLOON CONTROL UNIT

To be used to control pressure inside the balloons which are inflated and deflated during DBE examinations.

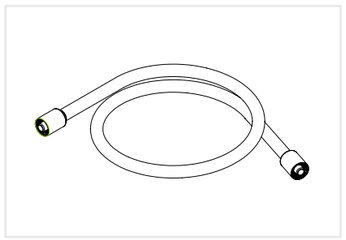
Maximum flow rate of pump	170 ml ± 50 ml / 10 sec.
Set pressure accuracy	± 2 kpa
Set air supply pressure	5.6 kpa
Weight	7.0 kg Main unit 0.4 kg Remote switch
Power	AC100 – 240V 50/60 Hz/0.8A
Dimensions (W x H x D)	145 x 170 x 410 mm

GW-100 CO_2 INSUFFLATOR

- Direct connection to the hospitals' medical CO_2 pipeline as well as to medical CO_2 cylinder
- Easy-to-use CO_2 flow rate switching function and compact design
- 2 controlled flow rate settings



GW-100 Main Unit



CT-11G Gas Tube Standard Accessory

Tube sets for the connection of GW-100 to the medical gas pipeline and medical gas cylinders are available.

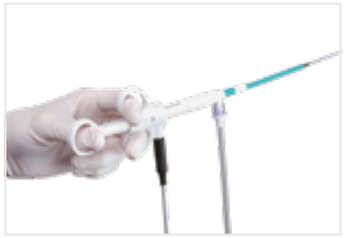
WT-04G
Fujifilm 500/600 system scopes equipped with the air and water supply function (excluding ultrasonic endoscopes)

WT-604G
Fujifilm 800/700 system scopes equipped with the air and water supply function (excl. ultrasonic endoscopes)

JW-3 WATER PUMP

Advanced piping technology enables water flow to be quickly stopped. The one litre water bottle enables prolonged water use and minimises the need for constant refilling.

Water jet system and rotable water supply port
The water jet system keeps the tip of the knife clean by washing off debris and lesion tissue adhering to the tip, thereby maintaining the sharpness of the knife throughout the treatment. The rotable water supply port allows comfortable usage of both tube and syringe connection.



Design Award Winner
JW-3 Water Pump

reddot winner 2022

DESIGN AWARD 2022

WATER PUMP ACCESSORIES

Product name	Where to use	Characteristics	Total tube length (mm)	Unit
Instrument channel tube JT-3RC	Instrument channel (mode A)	Reusable	2,230	1
Instrument channel-joint tube JT-3RC2	Instrument channel (mode A)	Reusable	195	5
Disposable instrument channel tube JT-3DC	Instrument channel (mode A)	Single-use	2,065	10
Water jet tube JT-3RW	Water jet (mode B)	Reusable	1,340 / Luer connector	2
Disposable water jet tube JT-3DW	Water jet (mode B)	Single-use	1,330 / Luer connector	10
Disposable therapeutic tube JT-3DT	Therapeutic device (mode C)	Single-use	3,350 / Luer connector	10
Water tank WT-3JW	Water tank			2

JT-3RC

JT-3RC2

JT-3DC

WT-3JW

JT-3RW

JT-3DW

JT-3DT

For infection prevention and safety

Autoclavable tubes and water tank, disposable tubes
Both tubes (JT-3RC, JT-3RC2, and JT-3RW) and water tank are autoclavable for effective sterilisation and are re-usable. In addition, sterilised disposable tube (JT-3DC, JT-3DW, and JT-3DT) can be selected in view of infection management.


Tip of JT-3DT to connection to saline bag

A line-up for therapeutic device (FlushKnife Slim: DK2620JI and DK2623JI) connection tube capable of submucosal supply
JT-3DT, designed for therapeutic device (FlushKnife Slim: DK2620JI and DK2623JI) is a disposable tube that connects to a saline bag via a port connector.

By combining this tube with FlushKnife Slim: DK2620JI and DK2623JI, it's possible to supply saline solution into the submucosal layer during ESD treatment.

For safety use, to avoid human error
If the cover of the pump head is opened during operation, operation is automatically stopped to protect users from injuries and accidents. The tube detector automatically recognises which tube is in use.

In consideration of safety use, the maximum flow rate is set for each tube. During continuous flow, the water supply is automatically stopped after a set duration for each type of detected tube, thus avoiding an incidence of human error.

Max. water flow rate and automatic cut-off timer

Tube type	Max. water flow rate	Automatic cut-off timer
A: Instrument channel tube	840 ml/min.	approx. 20 seconds
B: Water jet tube	220 ml/min.	approx. 20 seconds
C: Disposable therapeutic tube	209 ml/min.	approx. 8 seconds

ACCESSORIES

TS-1114B/1214B/1314B* OVERTUBE

Silicone overtube, sterile, single-use, with expiration date.

Model	TS-1114B	TS-1214B	TS-1314B
Compatible endoscopes	EN-580XP	EN-450P5/20	EN-580T, EN-840T

* Some tubes and balloons used for EN-580T and EN-580XP are made from non-latex materials.

TS-12140/13140/13101** OVERTUBE

Latex overtube, sterile, single use, with expiration date.

Model	TS-12140	TS-13140	TS-13101
Compatible endoscopes	EN-450P5/20	EN-580T, EN-840T	EI-580BT

TY-400/500 CONNECTION TUBES for silicone overtube

Connection tube kit for silicone overtube, exchange once every month or once every 10 cases.

Model	TY-400	TY-500
Compatible endoscopes	450 series	580 series, 840 series
Applicable Balloon Controller	PB-20/PB-30	PB-20/PB-30

TY-04/06 CONNECTION TUBES for latex overtube

Connection tube kit for latex overtube, exchange once every month or once every 10 cases.

Model	TY-04	TY-06
Compatible endoscopes	450 series	580 series, 840 series
Applicable Balloon Controller	PB-20/PB-30	PB-20/PB-30

BS-4* Balloon

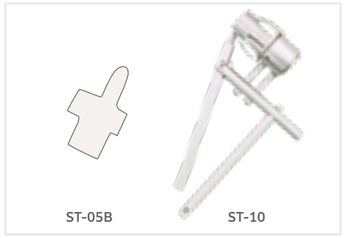
Endoscope balloon Ø 35 mm, single-use, with expiration date (10 pcs balloon + 20 pcs fixing rubber/pack), ST-10 needed to attach.

* Some tubes and balloons used for EN-580T and EN-580XP are made from non-latex materials.

BS-2** Balloon

Endoscope balloon Ø 35 mm, single-use, with expiration date (10 pcs balloon + 20 pcs fixing rubber/pack).

ST-05B/ST-10 BALLOON SETTING TOOLS for fixation



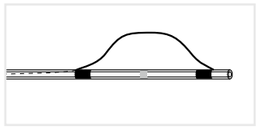
* Not made with natural rubber latex.
** This product contains natural rubber (latex) as a material.

BALLOON ENTEROSCOPY

AXS_TOME SPHINCTEROTOMES* 2 lumen

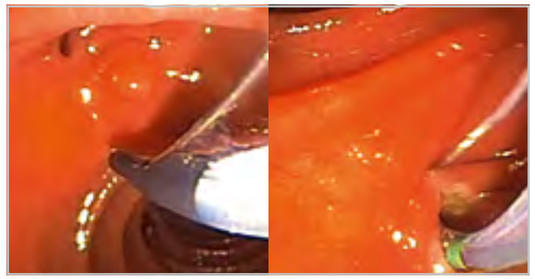
Product code	Material code	Characteristics	Cutting length (mm)	Accepted guide wire	Length (mm)	Ø Instrument channel (mm)	Unit
PAP1-D2-30-21-OL	70100146601	Micro-Tip, CWT	30	.021"	2,600	min. 2.8	2
PAP1-N2-20-21-OL	70100146696	Ball, CWT, balloon enteroscopy	20	.021"	2,600	min. 2.8	2

PAP1-D2



PAP1-N2

Anatomical 3-D orientation
Based on systematic 11 o'clock orientation the AXS_tome sphincterotomes also follow the left frontal anatomy of the distal choledochus.



ERCP-CATHETER*

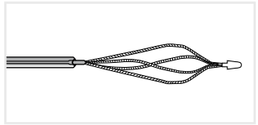
Product code	Material code	Characteristics	Length (mm)	Accepted guide wire	Ø Instrument channel (mm)	Unit
CAN1-B3-18-260-35	70100146580	Filiform, 1 lumen, radiopaque marking	2,600	.035"	min. 2.2	2

CAN1-B3

* Manufactured by FUJIFILM medwork GmbH, Germany.

STONE EXTRACTION BASKETS*

Product code	Material code	Characteristics	Ø Basket (mm)	Length (mm)	Ø Instrument channel (mm)	Unit
BAS1-C1-20-18-260	70100146573	Half twisted, not suitable for lithotripsy	20	2,600	2.2	2
BAS1-C2-25-23-260	70100146642	Half twisted, not suitable for lithotripsy	25	2,600	2.8	2

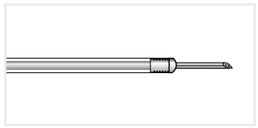


BAS1-C

MANTA INJECTION NEEDLES*

Manta ensures reliable retraction and extension of the needle, even in sharply angulated device positions, and prevents feared damage to the working channel. Maximum kink-resistance and single handed operation ease the application.

Product code	Material code	Characteristics	Ø Needle | Needle length (mm)	Length (mm)	Ø Instrument channel (mm)	Unit
INJ1-A3-05-5-18-240	70100146666	Latching mechanism, distal needle guide, suitable with Histoacryl	0.5 (25 Gauge) | 5	2,400	2.2	5
INJ1-A3-07-5-18-240	70100146657	Latching mechanism, distal needle guide, suitable with Histoacryl	0.7 (23 Gauge) | 5	2,400	2.2	5



INJ1-A3

OBSERVATION HOODS

Model	Characteristics	Distance from tip (mm)	Applicable endoscopes	Unit
DH-17EN2	Endoscope tissue removal cap, single-use	1.5	EI-580BT, EN-580T, EN-840T	10
DH-32EN	Transparent, sterilised with EOG	1.3	EI-580BT, EN-580T, EN-580XP, EN-840T	10

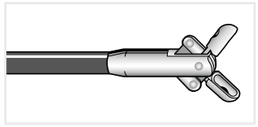
DH-17EN2

DH-32EN

* Manufactured by FUJIFILM medwork GmbH, Germany.

ENDOBITE2 BIOPSY FORCEPS*

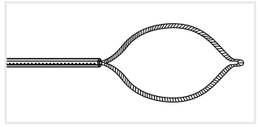
Product code	Material code	Characteristics	Ø Jaws (mm)	Length (mm)	Ø Instrument channel (mm)	Unit
BIO1-C4-18-260	70100146676	Oval jaws, coated	1.8	2,600	2.0	10



BIO1-C4-18-260

POLYPECTOMY SNARES*

Product code	Material code	Characteristics	Ø Snare (mm)	Length (mm)	Ø Instrument channel (mm)	Unit
POL1-B1-10-23-260-OL	70100147822	Convex	10	2,600	2.8	10
POL1-B1-15-23-260-OL	70100146685	Convex	15	2,600	2.8	10
POL1-B1-20-23-260-OL	70100147810	Convex	20	2,600	2.8	10
POL1-B1-30-23-260-OL	70100146712	Convex	30	2,600	2.8	10



POL1-B1

GUIDE WIRE*

Product code	Material code	Characteristics	Diameter	Length (mm)	Unit
WIR1-F1-21-500	70100147850	Straight, Nitinol, coated	.021"	5,000	2

WIR1-F1

* Manufactured by FUJIFILM medwork GmbH, Germany.

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